

Notice of Allowability

Application No.

10/723,061

Examiner

Delia M. Ramirez

Applicant(s)

FALCO ET AL.

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/2/2004.
2. ☒ The allowed claim(s) is/are 25,27 and 29-32.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 7/26/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Status of the Application

Claims 25-27, 29-32 are pending.

Cancellation of claims 28, 33-34 and election without traverse of Group I, claims 25-32 directed to a polynucleotide encoding the polypeptide of SEQ ID NO: 18, vectors, host cells, and a method to recombinantly produce the polypeptide of SEQ ID NO: 18, in a communication filed on 7/2/2004 are acknowledged.

In a telephone conversation with Emil Orozco on 7/29/2004, an agreement was reached to amend claim 25 and cancel claim 26 to place the application in condition for allowance.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 7/26/2004 is acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Priority

2. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. 119(e) to provisional application No. 60/092,869 filed on 7/15/1998.
3. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. 120 or 121 to US application No. 09/351,703 filed on 7/12/1999.
4. It is noted that SEQ ID NO: 18 was first disclosed in U.S. Application No. 09/351,703 filed on 7/12/1999.

Examiner's Amendment

5. An informal Examiner's amendment to the specification appears below. This amendment is to add a specific reference to prior application(s) in the first sentence of the specification (37 CFR 1.78).

6. Please enter the following amendments to the specification as follows:

7. In page 1, immediately after the title, please insert the following sentence:

This application is a divisional of U.S. Application No. 09/903,814 filed on July 12, 2001, now U.S. Patent No. 6,680,428, which is a divisional of U.S. Application No. 09/351,703 filed on July 12, 1999, now abandoned, which claims the benefit of U.S. Provisional Application No. 60/092,869, filed on July 15, 1998.

8. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

9. Authorization for this Examiner's amendment was given in a telephone interview with Emil Orozco on 7/29/2004.

10. Please cancel claim 26.

11. Please replace claim 25 as follows:

25. An isolated polynucleotide comprising:

(a) a nucleotide sequence encoding a polypeptide having methylenetetrahydrofolate dehydrogenase activity, wherein the polypeptide has an amino acid sequence of at least 95% sequence identity, based on the Clustal method of alignment with pairwise alignment default parameters of KTUPLE=1, GAP PENALTY=3, WINDOW=5 and DIAGONALS SAVED=5, when compared to SEQ ID NO:18, or

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(b) a complement of the nucleotide sequence of (a), wherein the complement and the nucleotide sequence consist of the same number of nucleotides and are 100% complementary.

Reasons for Allowance

12. The following is an Examiner's statement of reasons for allowance. Although the prior art discloses nucleic acids encoding methylenetetrahydrofolate dehydrogenases, the Examiner has found no teaching or suggestion in the prior art directed to nucleic acids encoding the polypeptide of SEQ ID NO: 18 or variants thereof as encompassed by the claims. The closest homolog to the polypeptide of SEQ ID NO: 18 (292 amino acids long) is the methylenetetrahydrofolate dehydrogenase polypeptide of Nguyen et al. (SPTREMBL accession number O65271, August 1, 1998; 360 amino acids long). The polypeptide of Nguyen et al. is 79.1% sequence identical to the polypeptide of SEQ ID NO: 18 ($79.1\% = 100 \times 231/292$). See attached alignment. Therefore, claims 25-27, 29-32 directed to nucleic acids encoding the polypeptide of SEQ ID NO: 18 or polypeptides having methylenetetrahydrofolate dehydrogenase activity wherein said polypeptides are at least 95% sequence identical to SEQ ID NO: 18, vectors, host cells, and a method to recombinantly produce the polypeptide of SEQ ID NO: 18 or polypeptides having methylenetetrahydrofolate dehydrogenase activity wherein said polypeptides are at least 95% sequence identical to SEQ ID NO: 18, are allowable over the prior art of record.

13. Claims 25, 27, 29-32 are allowed.

14. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

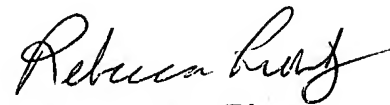
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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delia M. Ramirez whose telephone number is (571) 272-0938. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ponnathapura Achutamurthy can be reached on (571) 272-0928. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

Delia M. Ramirez, Ph.D.
Patent Examiner
Art Unit 1652

DR
August 13, 2004


REBECCA E. PROBY
PATENT EXAMINER
GROUP 1800
1600